



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/604,543	07/30/2003	Jun-Ming Chen	11113-US-PA	1542
31561	7590	01/19/2006	EXAMINER	
JIANQ CHYUN INTELLECTUAL PROPERTY OFFICE 7 FLOOR-1, NO. 100 ROOSEVELT ROAD, SECTION 2 TAIPEI, 100 TAIWAN			HUSBAND, SARAH E	
			ART UNIT	PAPER NUMBER
			1746	
DATE MAILED: 01/19/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/604,543

Applicant(s)

CHEN, JUN-MING

Examiner

Sarah E. Husband

Art Unit

1746

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

Specification

The disclosure is objected to because of the following informalities: paragraph 29 refers to the transmitting device (324), which should be (332).

Appropriate correction is required.

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless – (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Terui (US Patent No. 6,163,916).

Terui discloses a wafer cleaning apparatus having a cleaning tank (trough) (4), a wafer holder holding a plurality of wafers (Fig. 1, 7 and 8), a rolling device in the trough (Fig. 6, Item 18) operated by a motor (27), and the rolling device has at least one roller disposed perpendicular to the surface of the wafer and contacts the wafer edge. Terui also discloses a chemical fluid supplier connected to a fluid injecting device shown in Figure 8 by the arrow into the tank or Figure 9 indicated by the nozzles (50) (see entire document).

Claim Rejections - 35 USC § 103

Art Unit: 1746

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Terui in view of Sotozaki (US Patent No. 6,643,882).

Terui discloses the wafer cleaning apparatus shown above in the 102(b) rejection. Terui does not specifically disclose an adjustable fluid injecting device. Sotozaki discloses an adjustable nozzle (Fig. 1, 9; col. 8, line 40-col. 9). At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify Terui with Sotozaki for the benefit of a more thorough cleaning and because of these benefits as well as others, movable nozzles are well known in the art and one of ordinary skill would readily foresee this structural modification to the cleaning apparatus.

Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brown (US Patent No. 6,575,177) in view of Mendiola (US Patent No. 6,427,850).

Brown discloses a substrate cleaning system having a cleaning module (trough) (15), rollers controlled by a motor for rotating the substrate (Fig. 6A, 6B, Items 59a-c, 63), and nozzles supplying fluid to the substrate (53a, 53b; col. 8-9). Brown does not specifically disclose a plurality of wafers. Mendiola discloses processing a plurality of wafers (Fig. 10). At the time of the invention, it would have been obvious to modify Brown with a multiple wafer treatment process for the benefit of a faster process.

Claims 5-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brown in view of Mendiola, and further in view of Sotozaki.

Brown and Mendiola disclose the wafer cleaning apparatus as shown in the preceding 103(a) rejection. They do not disclose an adjustable fluid injecting device. Sotozaki discloses an adjustable nozzle (Fig. 1, 9; col. 8, line 40-col. 9). At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify Brown and Mendiola with Sotozaki for the benefit of a more thorough cleaning and because of these benefits as well as others, movable nozzles are well known in the art and one of ordinary skill would readily foresee this structural modification to the cleaning apparatus.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art not disclosed are Harvey (US 2002/0166569), Redeker (US 2003/0041879), Yamasaki (US 6,222,339) and Hong (US 6,382,901), who teach a wafer cleaning apparatus with rollers and nozzles.

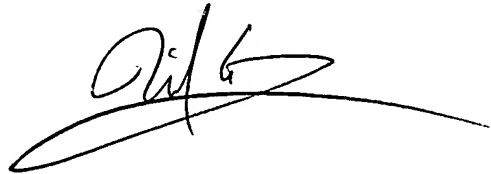
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sarah E. Husband whose telephone number is (571) 272-8387. The examiner can normally be reached on M-F 7:30-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael E. Barr can be reached on (571) 272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SEH

MICHAEL BARR
SUPERVISORY PATENT EXAMINER

A handwritten signature in black ink, appearing to read "Michael Barr", with a long horizontal flourish extending to the right.